IN THE CLAIMS:

1. (Previously Presented) A method for optimizing data transmission in a telephone network, the method comprising the steps of:

examining at a first switching network element whether an incoming leg of a user data connection is transmitted from a second switching network element via a packet data network and whether an outgoing leg of the same user data connection is transmitted to a third switching network element via said packet data network;

indicating an address of said packet data network corresponding to the other of said second and third switching network elements from said first switching network element to one of said second and third switching network elements if both the incoming and the outgoing legs are transmitted via said packet data network; and

releasing the user data connection between said first switching network element and one of said second and third switching network elements via said first switching network element.

2. (Canceled)

3. (Previously Presented) The method of claim 1, wherein one of said second and third switching network elements comprises said second switching network element and the other of said second and third switching network elements comprises said third switching network element.

4. (Previously Presented) The method of claim 1, wherein said packet data network comprises an internet protocol (IP) network and said address of said packet data network comprises an IP address.

5. (Previously Presented) The method of claim 4, wherein said address of said packet data network comprises an IPv4 address in accordance with RFC 791.

6. (Previously Presented) The method of claim 4, wherein said address of said packet data network comprises an IPv6 address in accordance with RFC 1883.

7. (Previously Presented) The method of claim 1, wherein said address corresponding to one of said second and third switching network elements is indicated to the other of said second and third switching network elements using a call control release message.

8. (Previously Presented) The method of claim 7, wherein said indication is attached to an Integrated Services Digital Network (ISDN) User Part (ISUP) RELEASE message.

9. (Previously Presented) The method of claim 1, wherein said connection ~~is~~ comprises a speech data connection.

10. (Previously Presented) The method of claim 1, wherein said switching network element comprises a network element of a cellular telecommunications network.

11. (Previously Presented) The method of claim 1, wherein said switching network element comprises a mobile services switching center (MSC) of a cellular telecommunications network.

12. (Previously Presented) The method of claim 11, wherein said switching network element comprises a MSC of a Global System for Mobile Communications (GSM) network.

13. (Previously Presented) The method of claim 11, wherein said switching network element comprises a MSC of a Universal Mobile Telecommunications System (UMTS) network.

14. (Previously Presented) A switching network element of a telephone network, the network element comprising:

means for examining incoming and outgoing legs of connections and for producing an output if both legs of a connection are transmitted via a packet data network instead of a circuit-switched connection;

means for indicating a packet data network address corresponding to one of the switching network element at a receiving end of said outgoing leg and the switching network element at an originating end of said incoming leg to another switching network element at the receiving end of said outgoing leg and the switching network element at the originating end of said incoming leg as a response to said output; and

means for sending a connection release message as the response to said output to one of the switching network elements at the receiving end of said outgoing leg and the switching network element at the originating end of said incoming leg;

means for releasing the user data connection between the switching network element at the originating end of said incoming leg and one of the switching network elements at the receiving end of said outgoing leg.

15. (Previously Presented) The switching network element of claim 14, wherein one of the switching network element at the receiving end of said outgoing leg and the switching network element at the originating end of said incoming leg comprises the switching network element at the receiving end of said outgoing leg; and the other of the switching network element at the receiving end of said outgoing leg and the switching network element at the originating end of said incoming leg comprises the switching network element at the originating end of said incoming leg.

16. (Previously Presented) The switching network element of claim 14, wherein the switching network element comprises a network element of a cellular telecommunications network.

17. (Currently Amended) The switching network element of claim 14, wherein the switching network element comprises [[a]] a mobile services switching center (MSC) of a cellular telephone network.

18. (Previously Presented) The switching network element of claim 14, wherein the switching network element comprises a mobile services switching center (MSC) of a Global System for Mobile Communications (GSM) network.

19. (Previously Presented) The switching network element of claim 14, wherein the switching network element comprises a mobile services switching center (MSC) of a Universal Mobile Telecommunications System (UMTS) network.